VOLUME XLIV, No. 4 FEBRUARY 13, 1947

THE JOURNAL OF PHILOSOPHY

PERCEPTION AND KNOWLEDGE [1]

I

THERE is little doubt that all scientific knowledge begins with experience, and that experience is connected with sense-perception in some manner. The first question is, then, how are we to speak of sense-perception; which terms should we introduce in order to describe it? It would be most natural to assert that the simple language of every-day life is sufficient for this purpose. But the "argument from illusion" demonstrates that sometimes something does not exist, although we do perceive it; and from the "argument from existence" we learn that sometimes something does exist although we do not perceive it. The unrestricted and exclusive application of the thing-language, based as it is upon common sense, leads into difficulties. It does not provide a reliable criterion of physical existence; and it would limit hopelessly the realm of knowledge, for we do require indirect knowledge.

It is at this point that we introduce psychology. For sense-perception furnishes a relation between the internal state of an organism and an external state of affairs. Our acquaintance with the external world does not always provide veridical knowledge. In our account of sense-perception, therefore, we should introduce only such terms which stress the character of immediate awareness, but which, at the same time, avoid all reference to physical existence. Thus we put the emphasis upon the other side of the relation: we make use of psychology in order to obtain direct and certain knowledge.

We have then to investigate which psychological terms have to be introduced and how this can be done. Avoiding all controversies, let us take the term "percept," since it is a neutral term. Percepts just occur—we do not observe our sensations, we have a sensation, etc. Of course, only the experimental psychologist can decide—on the basis of observation—what constitutes, psychologically, the perceptual object; it is by experiments alone that we can decide what is immediately given. But it is necessary to

[1] This paper is an abbreviated version; the original was read, in part, at the meeting of the Pacific Division of the American Philosophical Association, Mills College, California, December, 1941.

discriminate between the psychological and the epistemological import of this question. For the importance of a percept-language —whichever type of percepts we might choose—lies in the fact that in this way we can eliminate the usage of terms such as "thing" and "existence." Considering, then, perception as a sort of sign-process, we introduce a psychological language, a percept-language, without specifying what these percepts are. For we do not wish to criticize theories about sense-perception but the theory linking perception to propositions; we are justified in keeping to a neutral terminology. Then we say that the term "thing" belongs to a different kind of language, namely, to the thing-language and to common sense. And we regard percepts as symbolic expressions used in a certain manner: we consider not a theory about perception but a percept-language in which we speak about the physical world. Thus we use the percept-language as an artificial language which, like any scientific language, is subject to further corrections.

According to the subjective definition of sense-perception usually favored by empiricist philosophers an internal state of my body can be directly given only to me, at best. Thus, sense-perception is called "private." In our quest for certainty we wanted to avoid the pitfall of naïve realism, which is inherent in everyday language; yet the introduction of psychological terms—that is, the use of the percept-language—creates new problems. It is the problem of the publicity of knowledge: the unrestricted and exclusive application of psychological language would lead to sensationalism and solipsism. We have to steer clear of both these difficulties, lest we prove the truth of the statement "incidit in Scyllam qui vult vitare Charybdin."

The objective definition of sense-perception is supposed to resolve this well-known dilemma: we consider the physical behavior as the only clue to indicate the psychological processes going on within a person; then it is quite plain that the two following conditions must be fulfilled. First, it must be possible that the physical behavior can be immediately and veridically observed; this implies that the thing-language is applicable and that the common-sense view of the world is valid. Secondly, to each internal state of a person there must correspond one and only one physical state which can be observed; certainly, this is a highly dubious assumption.

The situation is not changed if we include language as part of behavior; for example, let us consider a basic sentence. Then it is said that all that matters here is the perception-predicate occurring in the basic sentence. The sentence does not express sense-experience

nor does it indicate the fact to which it seems to refer, but it refers to the physical state of the percipient. To insure communicability, this requires that an observer can immediately and veridically recognize the physical behavior of another person and, moreover, that he can correlate it with another physical fact which he can also directly observe. Once more, the common-sense view of daily life is assumed; and, surely, we must also know the correlation to the fact which the sentence indicates. How could we deal otherwise with dreams and hallucinations? We should be compelled, in the case of illusions, to consider words as physical facts just when, actually, they do not refer to facts.

The difficulties can be avoided, so the argument runs, when we interpret the perception-predicates not in a phenomenalist but in the physicalist language. Using the method of reduction sentences, for instance, it is true that we can introduce in this way psychological terms, provided they are used in the physicalist mode—that is, the psychological terms are considered already as belonging to the thing-language. Such a procedure, however, circumvents the epistemological problem; for in this case we operate with a pseudo-psychological language which differs in nothing from the thing-language, except in name. We merely enrich the thing-language by new predicates equally belonging to the thing-language. This is not sufficient in scope for a psychological language; for it is the characteristic of a psychological language that it separates the character of immediacy from the character of physical existence—otherwise we can not cope with the problem of perceptual error.

Basic sentences, or any linguistic expressions, for that matter, are not facts themselves except in the trivial sense that the sounds uttered or the words written are also physical occurrences. But the fact which a sentence indicates is not the same fact which is given by the occurrence of the sentence; it is equally not important what kinds of words occur in a language. For in this case, sense-experience would be merely verbal while, actually, its import lies in the direct reference to what is observed. Our basic sentences—whether we take them to express percepts (in a psychological language) or things (in a thing-language)—have to be interpreted not only as a feature of the physical behavior of a person but as indicating, at least sometimes, a physical fact outside the person such that it can be correlated with the behavior. Otherwise we should have no basis for knowledge at all.

Thus we come to realize that the psychological language requires another language—for instance, the thing-language—in order to provide public knowledge. We are faced by a dilemma: while it appears to be impossible to use the thing-language alone because

it is unreliable, it is equally impossible to use the psychological language alone because either it is private or it requires another known language as support.

II

This situation suggests that we investigate more closely the manner in which we can use the thing-language and how we can make use of common sense. In their radical desire to start off with a clean slate, most empiricist philosophers have dropped common sense because it is not wide enough to encompass all knowledge and because it is sometimes unreliable. Yet we need not give up common sense altogether because it has been found wanting in some respects; from the fact that common sense leads us into error sometimes, we must not deduce that it always does so. Common sense is a primitive epistemology, historical in origin, and therefore vague and ill-defined. It has, in the past, incorporated many mistakes and presumably still does so; and, in any case, it is insufficient. But it is knowledge obtained by experience, it is inductive knowledge—at least, we may interpret in this way a somewhat purified conception of common sense.

The comparison with classical physics in its relation to quantum physics commends itself as an illustration. The new quantum laws provide the necessary corrections, and we need not give up the whole system of classical physics. In a sense, classical physics is a basis and a touchstone for the validity of quantum physics. We might say that there is always some pre-existent knowledge of some kind—ἡ προϋπάρχουσα γνῶσις of which Aristotle spoke in his *Posterior Analytics*. But this previous knowledge is not *a priori* and absolutely certain; it is empirical knowledge. We assume tentatively the truth of some propositions, and on their basis we find new propositions by observation and experiment. It is the probability conception which comes into play here; it exhibits a feature of the physical world, it shows in another manner the uncertainty of all empirical knowledge.

In every-day life as well as in philosophy, common sense is usually taken to provide the fund of pre-existent knowledge. We need not put ourselves in the position of primitive man; we need not imagine we are the first pioneers in science and pretend that we know nothing at all. But if we know something already, then we do not investigate why we come to know at all but how new knowledge is added to our accepted knowledge. We must not confuse the genesis of knowledge with its analysis. We make use of all previous knowledge with due caution, in a restricted and

tentative manner. Analysis then will enlighten us as to the means we have been and are using to acquire new knowledge.

If we drop all previous knowledge, if we give up the thing-language and rely exclusively on a percept-language, we find ourselves compelled to say that we are never directly aware of any fact; that all knowledge is inferential. Certainly a most important part of our present knowledge is inferential: modern physics, above all, is such a kind of knowledge. We have to extend the domain of knowledge to objects which are not directly perceived; but we do possess direct knowledge also. If we drop it, we have no fixed ground to stand on; nothing to which to anchor our new knowledge. We should have to voice our despair with Archimedes: *Δός μοι ποῦ στῶ καὶ τὴν γὴν κινήσω.*

There are, then, two results which may be emphasized as the outcome of this discussion. First, that the percept-language can be connected with the thing-language; this connection is usually taken to be one-sided. However, instead of trying to build up public knowledge from private percepts, we might carry out the correlation in the opposite way. If there are physical things such as chairs and tables which we have knowledge of, and if we analyze this public knowledge in terms of the percept-language, then we shall find that we must change our views regarding the privacy of sense-perception. In fact, it will appear obvious that perception can not be private in the manner it is usually taken to be; and the "egocentric predicament" will lose much of its importance. Secondly, we have always to rely upon some previous knowledge tentatively assumed; and, thus, the concept of probability has to be introduced.

III

We have now to investigate the relation between thing-language and percept-language. The original thesis of physicalism, which however has since been abandoned, stated that the content of a protocol sentence is incommunicable but that its structure is exposed by translation into the universal physicalist language; and it is this structure alone which can and need be communicated in order to obtain knowledge. The discussion of this theory has more than historical interest; for even today it is maintained sometimes that all knowledge is knowledge of structure and that the structure of the language of physics is actually the structure of the physical world. Thus the question arises: what is structure, and what is it whose structure we have to investigate? Whatever structure may be, it is certainly relational; it exhibits relations between things or between words. And the structure of a sentence, I take

it, may be regarded as a formal property. Then we ask whether the structure of language or the structure of the world as it is perceived is to be of import to our problem.

(1) If we speak about the structure of a linguistic expression we may refer (*a*) to the relation of signs or marks to each other. This kind of structure is obviously trivial and does not play an essential part in experience. Should we refer (*b*) to syntactical structure, there is more reason to believe it to be important. But even syntax or grammar can not be said to represent the structure of experience. For syntactical structure is relative; equipollent sentences may have different structures. The structure of knowledge communicated is not necessarily the same as the structure of what is known.

(2) What, then, is the structure of perception and of experience? We may say (*a*) that structure is imposed upon sense-experience by the perceiving mind. This leads to apriorism. (*b*) Structure may be found in the act of perceiving: the order, for instance, in which percepts present themselves. But this is accidental (i) if we mean by order the spatio-temporal order in which we focus our awareness. However, when I say "I see a flash of light" and later "I hear a noise," then the temporal order is significant in my description of a thunderstorm. In this case (ii) we can not escape the conclusion that this "structure" is itself perceived. Therefore, the structure of what is perceived is the important item in our account; it is perceived in sense-experience and expressed in a sentence.

And so we are compelled to say that structure is not more communicable than content. For the view in question is based upon the assumption that sense-perception conveys content and that, therefore, it is private. But if structure can not be communicated except by referring to the content of experience, it follows that we should be aware of structure in some other way if communicability is only achieved by structure. Yet it appears impossible to find such a different way.

The same difficulty arises when we wish to speak not of the terms—as before—but of the rules according to which those terms are to be used (analogous to the rules of a game, etc.). Another illustration regarding the structure of knowledge has been given by a comparison with Russell's distinction between "knowledge by acquaintance" and "knowledge by description." "Knowledge by acquaintance" is supposed to correspond to the content of sense-experience. We can only point to it, so it is asserted; and I have no means of checking whether your percept resembles my own percept even when we both point to the same thing. It is

certainly not the same percept—this is excluded by convention—it can only be a similar percept. But how is this similarity to be ascertained? It is said that subsequent description of my perception furnishes the necessary information, and that this description is somehow related to structure. If I perceive "blue," it is taken to mean that x stands in the relation B to y. But unless I recognize in at least one instance a certain state of affairs which I may describe as "blue," I can not compare it with other instances. We should know at least one pair of variables (x, y) which satisfy the relation; that is to say, the relation must be given in sense-perception. Perception furnishes this relation but it is not itself this same relation. It is a physical process by which many different relations and many different states of affairs are apprehended. This confusion may have led to the assertion that structure is so important in perception. We can not establish this relation by convention; for the relation is supposed to describe a real state of affairs. By convention we can only establish names but not descriptions; to describe something means to refer to some extra-linguistic occurrences.

To assert that relations—that is, structure—exist (in the physical sense) apart from the objects which satisfy the relation, is to say that the grin exists without the Cheshire cat. And we conclude that structure and content are not essentially distinguishable in sense-perception, or in the percept-language; they belong to a more complex level—or, to a more complicated language. Therefore, translation of my protocol sentence into another language by means of formal rules can not solve the private-public problem when it is connected with structure and content in this manner. For the apparent structure which may occur in sense-perception is not the same as the structure occurring in the percept-language; and the structure of the percept-language is most certainly not the same as the structure of the thing-language. Thus we must say that if only structure is communicable, then we can not even communicate structure; if we only know structure, we know nothing at all.

IV

No formal method can help us to derive public knowledge from sense-experience, if the latter is taken to be "private." Thus we have to investigate how we come to call sense-perception "private."

It is quite true, of course, that my experience is my own experience and your experience is your own experience; but should we accept as true the statement that "never the twain shall meet"? What does "my experience" mean? And why should it be that

this private experience is so completely unique, so monadical, that comparison is ruled out?

If I say that I experience a "green" sensation now while, in fact, I look at the sheet of white paper on which I am writing, it is supposed that no one can prove that I am wrong. After all, other people can not look into my brain—and whatever sense-perception may be otherwise, it is certainly something occurring inside of me; for I can imagine a "green" percept. And surely the one statement we can make about perception is that it concerns an internal state of my body, while it is not at all certain whether it also concerns an external state of affairs. The so-called privacy of sense-perception has been found acceptable by most empiricists on grounds of this sort.

But it must always have appeared to be strange that we should know our minds better than the external world; that we know with certainty what is going on within our bodies and minds while it is so difficult and so unreliable to obtain knowledge from the observation of things and events around us; that self-consciousness seems to offer no difficulties while consciousness does. Of course, when formulated in this manner, no one would easily accept this Cartesian fallacy. Simple arguments from biology and psychology usually convince us that we are not immediately acquainted with our "selves"; only after having experienced the external world we carry over this experience, so to speak, and learn to distinguish the "self."

Thus, we must not be misled by the convenience of the psychological language towards the assertion that percepts are nothing but linguistic symbols occurring in a basic sentence. How could what is supposed to be essentially incommunicable become intelligible merely by speaking or writing, by uttering a noise, or by making a mark on paper? All my efforts to make myself understood would remain linguistic acrobatics, from your point of view. Like all symbols, percepts must refer to something in some manner —or the protocol sentence as a whole must refer to some actual state of affairs. If I describe a perceptual situation in a sentence which expresses my mind, but which does not indicate a fact, it is in many cases impossible to find out what I am talking about. However, should I base any actions upon a statement of this kind, inductive arguments may lead to a verification of the hypothetical fact I am asserting. And if I express a percept in a sentence which does indicate a fact—"I see white here now"—then again inductive reasoning can confirm or deny the fact indicated.

Percepts, if they are either supplemented by my actions or indicate a fact—and only in these cases are they of interest to knowl-

edge, for only then do they say something about the external world,—are not private in the sense that they can not be communicated. A perception-sentence represents a simple kind of hypothesis; and statements expressing these percepts can be verified. This is exactly the attitude we take in actual practice when we try to acquire knowledge. Yet this account presupposes quite clearly that we possess some knowledge already. Analyzing sentences in this manner, we must be able to perceive directly and reliably the behavior of other people; we must know, at least sometimes, the physical events and the manner in which statements about behavior refer to them. In other words, we have to presuppose the common-sense conception or some other, more scientific conception of the world.

Only in the trivial case where a percept expresses my state of mind without further indication of any kind may it be possible to call it "private." And yet, even in this case, I can express it, although you may not be said to know what I am talking about, except in a very elliptical way. This, however, constitutes a purely emotional character of sense-experience as distinct from the cognitive character. And, indeed, our emotions may be private and incommunicable in many cases; it is of no interest to the logical analysis of knowledge. Here I may protest against the intrusion into my private world; and yet even poets sometimes claim to be understood by their public.

Psychoanalysis, for instance, has shown that it is sometimes possible to correlate dreams with physical occurrences; and so we can speak about them intelligibly, and perhaps even intelligently. Or again, it is my pain when I prick my hand with a needle, just as it is my skin that gets punctured. That my hand is my hand, and that my experience is my experience, is then nothing but a verbal convention. No mysterious power of introspection is required to make statements about my experience. I may be privileged as an observer for I am placed within the system to be investigated. But although I may be directly aware of my sensations, I can gain no knowledge from it unless I find a correlation with some physical event. When I feel a pain in my body—although, unfortunately it is my own pain and although I am immediately aware of it—I prefer to call a doctor to tell me what is wrong with me. In this case, a person to whom my pain is not a matter of direct, personal experience is better able to check my protocol sentence by establishing the reference to a fact.

It is the very fact of color-blindness, for instance, which demonstrates that we can speak about our sensations with a high degree of accuracy. It is quite true that no two percepts of two different

persons—or, for that matter, of a single person—are ever absolutely the same. However, we can find out whether they are equal in some respects, and this is all we require for communication. That two percepts may be similar might be conceded readily by most people. But by choosing a suitable coördinating definition, we can determine whether they are quantitatively equal. By a color-matching test, for example, I may measure the numerical equality of visual sensations; and with the help of a tuning-fork I can test auditory data. But, again, this presupposes that we have some reasonably certain knowledge, for we measure the unknown quantity in terms of what is known.

V

It may be concluded, then, that we can not replace the thing-language of daily life by a psychological language—we can only correct the thing-language in this way. The psychological language is not a substitute for the thing-language, it is an extension of it. Psychological terms can be introduced only on the basis of the thing-language, and then we can show that sense-perception is not "private" in the manner it is usually taken to be. However, this requires the use of the thing-language and, thus, the acceptance of common sense. And since common sense can only furnish us with probable knowledge, the introduction of a psychological language—that is, the return to a basis which appears to be more immediate—can not make our knowledge more certain. Although we seem to go back to the firm ground of immediate awareness and although we seem to attain, therefore, the greatest certainty imaginable, we can not escape the fact that all empirical knowledge possesses the character of probability—unless, of course, we choose to retire to the Ivory Tower of solipsism.

However, it is clear that if we wish to conciliate in this manner the so-called privacy of sense-perception and the established publicity of knowledge, then we must analyze more carefully the two languages in question. Experimental psychology has shown that psychological language does not deal with physical things but with perceptual objects; the perceptual object is, therefore, not the physical object. The percept-language can only refer indirectly to physical existence, the thing-language refers directly to physical things which are then immediately observable; however, this gives rise to the problem of illusion and of indirect knowledge. The introduction of psychological language, then, enables us not only to refer to sense-perception (which we can never do without), but to specify more clearly what is immediately given. Psychological research has shown that the given always changes in the direction

of the physical object and that, under normal circumstances, we always see things; we perceive a chair but we do not have separate percepts of hardness, color, size, and so on. The experiments about the relative constancy of body-size (as compared to the changing retinal size) of objects demonstrate this fact very convincingly (E. Brunswik). As a result of the age-old experience of mankind our perceptual mechanism works in this way. Under normal circumstances, we perceive things exactly as they are; and what is immediately given in this case is the physical thing.

But in the case of hallucination and of indirect knowledge, what is immediately given is not a physical thing but a percept or an "in-between object" or, as we say also, we have a percept. And it is the result of the normal adaptation of the perceptual apparatus that we mistakenly ascribe physical existence to what is given in sense-perception in this case. Or, the introduction of psychological language enables us to separate out immediate awareness from physical existence of something; and this is exactly what we require for our purpose. For, of course, what is immediately present to our senses, as percepts or whatever else, is just present. And it would be misusing the terminology if we were to speak of erroneous sensations. We can be mistaken about the physical existence of physical things; in the thing-language immediacy and physical existence are linked together as they are in daily experience. But in psychological language we deal only with immediate awareness which is as it is and can not be otherwise. In this way psychological language can improve upon the errors of the thing-language by correctly correlating a percept to a thing.

On the other hand, perception is always the same process: we are immediately aware of something in the thing-language as well as in psychological language—and only in case of doubt are we forced to describe the process in more detail, to resort to abstraction and to analysis. Then we have to divorce immediate awareness from physical existence and to introduce psychological language.

Therefore, we can not say that percepts exist—except when we import still another physical interpretation, namely, physiology. Only physical things have physical existence, by definition. The simple definition originating from daily experience is then extended to cover also the more detailed experience obtained by science. By analysis we find the conditions which are fulfilled by an object in daily life when we ascribe existence to it. Thus we can say that atoms exist—not because they are immediately perceptible; they are only indirectly perceptible but they are observable by means of the usual scientific instruments, and they obey the laws

of physics. Statements of this kind provide us with the criterion for physical existence; and, from this viewpoint, a term such as "percept" is a scientific construct and psychological language becomes an "artificial," scientific language.

Here we find the reason why we always have to return to the thing-language; and this is illustrated by the psychological experiments mentioned. For we wish to speak about physical existence—and physical existence is a term of the thing-language. If we restricted ourselves to using exclusively a psychological language, then we should have no means of introducing physical existence. This can be done only by pointing to a physical thing, by a coordinating definition relating the term "sensation" (or a specific percept) to a term of the thing-language.

We do not require psychological language—as it was intended originally—to obtain certainty but only to extend our knowledge. The psychological language, if it is to be communicable, must be related to the thing-language or to any language of the "physical type"; it is more accurate, more detailed in the description of the physical world but it does not provide us with a more certain basis for knowledge. In this case we use psychological language as an auxiliary language. Now, it is true that we increase our knowledge with the help of scientific discoveries, by the introduction of a new terminology; in physics, for instance, we find new physical objects such as electrons, neutrons, and so on. But it is precisely because we can correlate these discoveries, these new phenomena to the physical things of daily experience or to the physical objects of scientific experience, that we can ascribe physical existence to them; otherwise they would remain mere shadows.

Yet it would be dangerous to assert that there is a "basic" language; there is only what one might call a "natural" language. When we wish to make statements regarding the physical world, we obviously prefer to use a language which refers to the physical world; thus we might choose the thing-language and common sense. In the thing-language physical existence and immediacy are two characteristics which usually occur together. Therefore we might prefer a scientific language—i.e., the actual language of physics which, at least in the present stage of development, refers to physical existence, but has lost, to a large extent, the character of immediacy. For the description of the physical world we require a language of the physical type; any such language will serve our purpose—it is a matter of convenience and of convention. This shows, however, that the uncertainty of knowledge can never be eliminated; it is not through an arbitrary choice of language that we are forced to say that all empirical knowledge is probable.

To summarize: this paper is concerned with the question of how knowledge can be derived from sense-perception. The argument from illusion and the problem of indirect knowledge which confront us in daily life (in the thing-language) necessitate the explicit introduction of psychology. But psychological language introduces, in its turn, the problem of publicity of knowledge. This can be overcome only when we assume the thing-language to be valid; then, by coördinating definitions, it is possible to correlate percepts to physical things. And there are good reasons to accept common sense as pre-existent knowledge which is tentatively assumed to be valid. Experimental psychology gives support to this contention by clarifying the nature of sense-perception; and we have to distinguish the characteristics of the two languages in question. Thus, we seem to arrive at a satisfactory answer to our initial problem.

ERNEST HIRSCHLAFF HUTTEN

UNIVERSITY OF CHICAGO

VERIFICATION AND PROBABILITY[1]

NO proposition about existence is ever completely confirmed by the evidence. This statement is a commonplace of modern logic. But the element of contingency in most current discussions is identified with one limitation only, that is, the limited number of observations in relation to the total number of cases denoted by the proposition. These analyses of the problem are inadequate since there are at least three other ineradicable elements of contingency. By contingency in confirmation I mean factors that would have to be eliminated before complete verification could be claimed. Further investigation may yield a recognition of still other such factors, but at this stage we are able to analyze four: (1) Generalizations are confirmed only by a limited number of cases; (2) There is an element of interpretation in all data; (3) The concepts employed in a hypothesis are marked by incomplete semantical definition; (4) There is an element of selection of data-as-relevant which can never be completely controlled.

Generalizations about existence are supported by a specified body of observations of existence. Universal propositions about evidence are in the form "all x is y." "All x" denotes all past, present, and future instances of x. The data that support this

[1] A paper read at the meeting of the Western Division of the American Philosophical Association in Chicago, May 9–11, 1946.

affirmation are limited to some past instances of x. The body of data can never include the present and future instances of x nor all of the past instances of the class. This means that the confirmation of the universal proposition is always incomplete.

The element of interpretation in all data is the second aspect of contingency in all knowledge of existence. Space does not permit adequate examination of the nature of data in this paper. Suffice it to say that perceptual observations always are composed of two elements: that which is given and the interpretation of the given.[2] In some instances of perception the factor of interpretation is very slight, but it is never absent. Interpretation by its very nature involves the possibility of variation from one observer to another. There is some degree of relativism in all perceptual observation. Controls can be established over the various factors in interpretation, and by means of these controls the degree of relativism can be minimized. Rules of accepted procedure can mark the control of physical factors, variations from the norm can be recognized in the physiological factor, and social control can be established over the process of symbolizing. But the controls are never complete in any of these areas. Thus there is an ineradicable element of contingency in each observation.

A third factor of contingency in all knowledge of existence is the incompleteness of the semantical definition of the concepts employed in propositions about existence. Most propositions about existence can be reduced to categorical propositions that assert relations of inclusion and exclusion between classes. The subject and the predicate of these propositions are categorial or class concepts. The semantical meaning of a class symbol is defined in part by its designata, the characteristics which instances of this class must exhibit in order to be included within the class. This mode of defining the semantical meaning of a concept remains incomplete because the process of semantical definition involves abstraction, singling out some of the parts within the whole of a concrete situation. This incompleteness involves the possibility of error because it inevitably includes a surd of indefiniteness in the relation of the symbol to its referent. Failure to recognize this is what Whitehead calls the "dogmatic fallacy."[3]

Fourth, the process of obtaining data and the grouping of data into areas of subject-matter involve selection. The processes of selection can not be completely controlled because it is a limitation of the present state of our knowledge of the psychological processes of human thought that we are unable to isolate, study, and under-

[2] Cf. L. Hahn, *Contextual Theory of Perception.*

[3] *Adventures of Ideas*, p. 185.

stand what is involved here. The selection of data at the confirmatory stage of inquiry is demanded by the implications drawn from the hypothesis. This process is fairly clear. The controls on it inhere in the body of knowledge to which the hypothesis is related and in the logical relations by which the implicates are drawn. This process is controlled further by the skills, tools, and circumstantial availability of areas of further observation. At this stage some degree of control may be established over the processes of selection. At the initial stages of selection of data subjectivity is more prominent. It is always difficult and frequently impossible to trace the relations that issue in the grouping together of a body of observations, seeing in them a problem for inquiry, and thus constituting them a body of data.

When one attempts to deal with a logical problem of incomplete verification, he is confronted with four elements of contingency, not simply with one. No discussion of probability in knowing has taken into account more than one of these elements. Venn, Keynes, Peirce, Nicod, Reichenbach, Nagel, Dewey, and Cohen have all limited their attention to the problem of the ratio of the number of observed cases to the total number of cases denoted by the class symbol in a universal proposition.[4]

Probability was developed as a mathematical concept. As a mathematical concept it deals with permutations and combinations of numbers. It is the term applying to the relative frequency of any specific combination in the total number of possible combinations. Like all other mathematical concepts, it has meaning within the symbol system, and the rules of implication that belong to the particular branch of mathematics in which it is employed. That is to say, probability, as a mathematical concept, is a concept of the relations between symbols. It belongs to the purely formal level of meaning.

This system of formal relations between symbols can be applied to events in a limited way. When observations of events *can be given numerical values,* and different possible combinations of these events can be stated as combinations of numbers, then the mathematical theory of probability can be used as a mode of stating an interpreted relation between observations of events.

This is done in statistical procedure. It is best illustrated in insurance mortality tables. By consulting such a table, we find that the probability that the class of persons forty years of age

[4] J. Venn, *Logic of Chance;* L. M. Keynes, *Treatise on Probability;* C. S. Peirce, *Collected Papers;* J. Nicod, *Logical Problems of Induction;* H. Reichenbach, *Experience and Induction;* Ernest Nagel, *Principles of the Theory of Probability;* John Dewey, *Logic;* M. R. Cohen, *Reason and Nature.*

will reach their forty-first birthday is .942. This fraction was derived from census figures. The meaning of such a proposition is a matter of disagreement. The classical view was that it stated a subjective expectancy. This interpretation was based upon the fact that probability statements do not apply to the single case. In the illustration just given, the probability that Mr. *X*, who is forty years old, will reach his forty-first birthday, is not asserted. Mr. *X* will either reach his forty-first birthday or he will not. His attainment of this forty-first year will not be fractional. Likewise, classical subjectivism in probability theory recognized that it was impossible to confirm or infirm a statement of probability on empirical evidence. A single case, or any number of cases of death during the forty-first year, could not infirm the proposition, since any number of such cases might be regarded as lying within the fraction .058 of an infinite number of cases. Since statements of probability could not apply to the single case, and since they could neither be confirmed nor infirmed by empirical observation, they were regarded as being purely subjective statements of expectancy.

There is difficulty in the subjective view of mathematical probability. The proposition is derived from empirical data, and the expectation is an expectancy of events; so, on two grounds, any statement of probability has an objective reference.

By far the commonest means of accounting for this objective reference is what is known as the frequency interpretation of probability. According to this notion, it is a statement of the relative frequency with which a particular combination occurs within a class. Whichever interpretation is employed, theory of probability in this form is applicable to statistical method, for it can deal only with observations that can be assigned a numerical value, and propositions containing statements of probability are always particular propositions, never universal propositions.

Hans Reichenbach has attempted to extend the frequency interpretation of probability to include the degree of confirmation of universal propositions. He interprets degree of confirmation as the frequency with which a class of propositions of this degree of confirmation leads to predictions that conform to conclusions. In other words, Reichenbach holds that mathematical probability and logical probability are identical in structure and that both are subject to frequency interpretation. "Our thesis amounts to maintaining the applicability of the frequency interpretation to all concepts of probability."[5]

[5] *Op. cit.*, p. 304.

Reichenbach's claim of the identity of logical and mathematical probability breaks down in the face of the fundamental difference between particular and universal propositions which is the difference between statements of a probability and universal statements that are confirmed to a limited degree. There is a further difficulty with his view that probability applies to the frequency with which propositions of a *given* degree of confirmation lead to successful predictions. That is the very fact that he can not specify: a numerical value for a degree of confirmation. Nagel's [6] argument that frequency interpretation can deal only with numerical values is a sound one.

Keynes and Nicod have recognized the distinction between mathematical probability and logical probability and have interpreted the latter as a unique form of logical relation between propositions. This logical relation is one that permits the arrangement of propositions in a series of increasing degrees of confirmation. Probability, for Keynes, is the rational grounds for preferring one proposition over another. There is no logical objection to Keynes' view. The difficulty with it is that it does not meet the fundamental problem of contingency in all propositions about existence. The central problem is not to arrange propositions in order of rational preference. This is not the central problem because it simply does not happen in the course of inquiry that we have several propositions, confirmed to some degree, among which we must express gradational preferences. The situation is one proposition which according to all the evidence is a solution of a problem, but the evidence is incomplete and relative. The central problem is recognition of the fact of contingency; then the analysis of specific elements of contingency; and finally working out means for reducing contingency to a minimum.

From our discussion of theories of the nature of probability these practical results in the application of such theories would seem to follow:

(1) Frequency interpretation of probability is applicable to statistical method only and provides the criteria for judging the limitations in the application of this method as well as the criteria for judging its legitimate applications.

(2) When the problem is one of supplying rational grounds for the selection between propositions, Keynes' interpretation of probability as applied to the degree of confirmation becomes a useful tool, but,

[6] *Op. cit.*, pp. 19 ff.

(3) When the problem is neither of the first nor second sort but is one of tentative assertion of a universal proposition which is confirmed to a limited degree, two practical requirements are apparent. One is the avoidance of what Whitehead calls the "dogmatic fallacy," the other, progressive increase in the degree of certainty with which the proposition can be asserted. It is this last point which is of greatest practical concern. There are at least five factors which contribute to the minimization of contingency in universal propositions about evidence.

The first factor in lessening the element of contingency is the self-corrective [7] nature of the method of reflective synthesis. As a method it is capable of dealing with its own errors. None of the other historical methods of getting and testing knowledge can do this. In the method of authority, the authority must be presumed to be incapable of error, in fact in the method of authority error can not be recognized as a product of the method. The method of intuition is operative within a given segment of time and whatever the result of the particular intuition the temporal context can neither be recovered nor repeated for checking that result. An intuition is a singular, unique event and if any product of intuition is later judged to be error that judgment is a different intuition. There is no going back to check. The method of pure rationalism is likewise incapable of dealing with error. Its very nature is that, given the premises, the conclusion is forced. None of these historic methods can admit of doubt, yet doubt which is the recognition of the possibility of error or the recognition of actual error is an ineradicable element in the human knowledge situation. Unlike any of the historic methods, the method of reflective synthesis both admits of an irremovable element of contingency, an ineradicable element of possible error, but at the same time provides the means for dealing with that error. It thrives on doubt. It is doubt of the applicability or adequacy of some particular, confirmed conclusion that provides a new problem situation for a new inquiry, consequently a new application of the method. This is its essential provision for progressive advance. Knowledge based upon this modern tool never expects to be final, ultimate, or complete. Conclusions are always relative to the present state of inquiry in the particular field and in the whole intellectual climate. Error loses the face of tragedy and becomes the main-spring to further inquiry with its optimistic expectation of progressively more competent result.

A second factor that contributes to the minimization of con-

[7] Cohen and Nagel, *Introduction to Logic and Scientific Method*, p. 385.

tingency inheres in the character of a body of knowledge rather than in the structure of the method that produces it. The fact that a body of knowledge has the character of a whole with definitely related constituent parts rather than an unrelated aggregate of conclusions is the key to this second factor. A body of knowledge is a *body* of knowledge because the conclusions that compose it are coherent; they stand in mutually implicative relations with each other in a system. The process of confirming any one conclusion related to that body of knowledge involves the use of the system as a source for drawing the implicates of the particular hypothesis being subjected to tests. It follows that evidence confirmatory of the particular conclusion is in some measure confirmatory of the whole system. This means that the history of a body of knowledge is progressive confirmation of the whole system, consequently of every element in it. To illustrate: knowledge of heredity in biology constitutes a subordinate system. Any particular investigation of hereditary processes will yield a hypothesis which must be related to the system of knowledge concerning heredity in order to draw any implicate hypothesis in the processes of test. Either confirmation or infirmation of the particular hypothesis adds to the confirmation of the system, since the investigation is carried out *in relation to* the system.

There is one very common misconception as to the means of increasing the certainty of a proposition. That is the assumption that increase in the number of data makes for greater certainty. Certainty may increase with the number of data that confirm a proposition but the increase in certainty is not due to number only. It is due rather to the *range* in the data that confirm a proposition. In some processes of test only one implicate proposition may be drawn from a hypothesis and the correspondence of this implicate to data repeatedly tested. This is one means of increasing the number of the data, but a relatively higher degree of certainty is obtained by deducing several implicates that require data in several different fields or contexts for their test. One factor in reducing contingency is to deduce as wide a variety of implicates as the hypothesis and the body of knowledge to which it is related will permit. Accessibility of data to test these implicates is, however, a limiting factor.

A fourth factor in the removal of contingency is implied in what is known as the "theory of fair samples." The requirements for the fair sample are not common for all types of data. In some instances what is regarded as a fair sample or a fair representative of the class means random selection. In other instances the rules of admission of a fair sample are clearly stated. The only

requirement common to all examples of the fair sample is that consciously subjective controls in the selection of data shall not be permitted. The theory of fair samples amounts to little more than the requirement of honesty in inquiry. There are no satisfactory means of recognition and control of all the factors that may enter into selection. For example, if the method of fair samples means in a particular instance random selection, the actual control in selection may be ease of access to data. A much more important control than any theoretical statement of the method of fair samples is the moral requirement that is common to all organized inquiry.

A fifth factor in the minimization of contingency is the possibility of progressively reducing the factor of interpretation in the data employed. In some instances this can not be done. When that is the situation, controls may be established over the process of interpretation that is involved in this kind of perception. This control over interpretation comes through recognition of what these factors are by a group of inquirers in a particular field and the establishment of definite modes. For example, when the major factor of interpretation is the system of symbols employed, common practice in the use of the symbols and progressive refinement of the meaning of the symbols can reduce the element of intellectual arbitrariness in the selection of the relevant symbol.

These five factors can never remove contingency. The elements of contingency are inherent in the conditions of acquiring knowledge. They can progressively reduce the degree of contingency, consequently bring successively higher degrees of certainty. Theoretical clarification of the nature of the elements of contingency and the methods for dealing with them means that tentativeness in our knowledge of existence does not require irrationalism, pure relativism, or blind faith. Just the reverse. Failure to deal with these elements by competent theory would require irrationalism.

EDWIN RUTHVEN WALKER

UNIVERSITY OF COLORADO

COMMENTS AND CRITICISM

THE IRRATIONAL

Professor B. A. G. Fuller's extension of Heine's theological doctrine in his article "Is Reality Really Comic?" [1] has raised, as its readers must have seen, one of the fundamental problems of the philosopher. It was, however, written with such skill that there is

[1] This JOURNAL, Vol. XLIII (1946), pp. 589–598.

reason to believe that many American philosophers will turn away from it as simple foolery, or at best a graceful personal essay. At the risk of adding to the humor of the universe and to show at least one man's appreciation of Mr. Fuller's contribution to philosophy, I am listing below an additional set of factors which, if they do not prove God to be a practical joker, at least suggest that rationality is not pervasive of the cosmos.

I am assuming that a set of assertions is rational when one can proceed from premise to conclusion without the help of observation. Such a rational system exists, of course, in plane geometry. If the universe were rational in this sense, it ought to be possible to set down a system of assertions which would be true of it and which could be ordered from premises to conclusions. The considerations which follow are believed to be evidence against this possibility.

1. *The gaps between the sciences.* Although we believe that each year sees increasing progress made in "reducing" chemistry to physics, and biology to biochemistry, yet no explanation is forthcoming of why, when particles of matter are arranged in a certain way, chemical properties are observed which were not present in the physical properties. Again, although all vitality may be conditioned by biochemical factors and although all the conditions of vitality may some day be known, there is clearly no procedure for discovering in chemical substances which are not themselves vital, pre-existing vital traits. This is the platitude to which William James invited philosophic attention when he said that water was more than H_2O; it was wet. The wetness, and, of course, many other properties of water, could be predicted only after water had been analyzed and subsequently synthesized. It is a true prediction, but it is based upon observation, not upon pure reasoning.

2. *Levels of behavior.* That the various levels of behavior first brought to the front by the emergent evolutionists could not have been predicted before they emerged, must also be a commonplace at this time. The metaphor concealed in the word "emergent" may lead people to think that novelty must have pre-existed in that out of which it emerged, on the principle of *Ex nihilo nihil.* But as a matter of fact, those who sustained the thesis meant to deny that principle in so far as it implied the pre-existence of the effect in the cause. There is nothing in emergent evolution which would induce one to believe that it is impossible to state the conditions under which the emergent appears. It simply maintains—or at least needs to maintain—that the progress from one level to another is made under the guidance of observation, not reason.

3. *Fact and value.* That one can not argue from existence to value has become almost a philosophic dogma and the break be-

tween the two realms would seem to be absolute, as far as deduction is concerned. It has seemed to the writer of this note that value actually grows out of the compulsory force of habit, which is sufficient to account for the feeling of obligation which certain values possess and for their self-substantiation. As far as he is able to discover, no one else has ever been persuaded of the plausibility of this thesis. But even if all the world were persuaded of its truth, the logical gap between the two would still exist. We could theoretically state the conditions under which evaluations are made and explain psychologically why they are made. But that does not "reduce" values to facts, nor does it permit one to equate the effects of habitual behavior with habitual behavior itself. To do so would be analogous to asserting that the pigment, green, was identical with the pigment, blue, and the pigment, yellow. There is nothing mysterious in this, for it occurs under known conditions which can be made precise. But what is there about blue or yellow or between blue and yellow which would permit one to predict that when they are mixed they will produce green? What is there about the simple repetition of an act which would allow one to predict that (*a*) the time to perform it will grow less as it is repeated, (*b*) that the perception of the stimulus will fade out, (*c*) that a feeling of necessity will emerge from it? Such characteristics of habitual behavior are learned from observation.

4. *Hierarchies.* If there are any genuine hierarchies in the universe, such as that imagined by Plotinus, the differentiation of levels would be exactly similar to that between levels of behavior. Plotinus was forced logically to lay it down as a dogma that (*a*) everything produced something, and (*b*) that the product was worse than the producer. On the basis of that premise he was able to infer his cosmic hierarchy. But such reasoning is clearly circular—it could scarcely have been otherwise. Without assuming the process of deterioration of the divine energy, he would have been forced to examine each drop in the descent, though in his case that would have been impossible, since he believed that descent to have no gaps which would mark the end of one level and the beginning of another.

5. *Individuation.* Since a logical system contains nothing but universals, the principle of individuation must always be observed. In Saint Thomas and Aristotle it was possible to use space for this purpose and to present a semblance of plausibility. But aside from the difficulty of our accepting their conception of absolute space in which each position is unique, to say nothing of the other difficulties of their theory, it is clear that once more individuation is explained only on the basis of an assumed set of individual posi-

tions. There is no ground, in other words, for deducing from the character of any universal that it will ever be exemplified in a particular. This is analogous to

6. *Existence.* It has been frequently pointed out that in order to argue from general principles to particular instances, it is necessary to introduce an existence-postulate. Though one may descend the Tree of Porphyry from pure Being to Man, one has to introduce a new principle to discover any men. This is learned by every freshman, I suppose, as soon as he learns about the Tree. It may be possible to reformulate the principle of plenitude so that not only every kind of thing must sooner or later exist, but also that every possible particular exemplification of every kind of thing must exist. But this again simply assumes what one is presumably trying to prove.

Since the rise of empirical science, few scientists would deny the truth of what has been observed above. Most of them would no doubt maintain that if one can state the conditions under which anything whatsoever occurs, one has done enough. But thinkers who believe in the "sheer force of logic" could not agree that logical systems are posterior to observation. Yet even Meyerson, who did so much to popularize the idea of explanation's being identification, was willing to admit the occurrence of the irrational, surds, the unpredictable. To drop them out of a philosophical system and to equate an effect with the conditions under which it occurs, makes for simplicity of technique but for complexity, indeed confusion, of thought. To bring together in one place a series of different occasions in which the irrational appears ought to suffice to correct this confusion.

I do not know, naturally, whether Mr. Fuller's God, or his vicar on earth, will get much of a laugh out of this brief note. Nor does its author fail to observe the comic side of a philosopher's trying to prove that the cosmos is not quite so amenable to reason as has sometimes been thought. The moral ought to be, first, one would imagine, that a new conception of logic is required and that, in the second place, philosophers will give up the whole idea of system-building and settle down to solving specific problems of limited range. A logic which consists exclusively of tautologies could only by accident—or the beneficence of its formulator—be applied to the problems of reality. But a logic which does not consist exclusively of tautologies is clearly a making consistent of ideas which have been formulated from "experience."

GEORGE BOAS

THE JOHNS HOPKINS UNIVERSITY

BOOK NOTES

Dios y la filosofía. CLARENCE FINLAYSON. Medellín, Colombia: Universidad de Antioquia. 1945. 262 pp.

Clarence Finlayson was born in Valparaíso, Chile, in 1913, and is at present teaching at the University of Antioquia in Medellín, Colombia. The above work is the preliminary edition in Spanish of his dissertation prepared under the direction of Yves R. Simon, the French Neo-Thomist at the University of Notre Dame. The final edition will appear in English and is to be prefaced by M. Simon himself.

The central theme of the thesis, around which Sr. Finlayson writes a kind of Prolegomena to all future scholasticism, is concerned with the "Metaphysical Names of God" appropriate to his essence. The problem of this theme is traced back to St. Thomas's commentary on the *De Divinis Nominibus* by the Pseudo-Dionysius, together with the polemic between Meister Eckhart and Duns Scotus at the University of Paris in the beginning of the fourteenth century. The author regrets that the followers of his own scholastic tradition have neglected the problem unduly, but admits that Maritain solved it correctly, though briefly, in *Sept leçons sur l'être.* In other words, Sr. Finlayson considers his contribution to lie in developing what Maritain stated in germ.

As one would expect, the main authority of this book is the Angelic Doctor but, interestingly enough, he is an Aquinas seen for the most part through two of his Renaissance commentators, the Italian Cajetan and, especially, the Portuguese John of St. Thomas. So much so that the author almost swears by the two St. Thomases. Moreover, following a lead of Albertus Magnus, Aquinas's master, that we can only know God by negation and analogy, Sr. Finlayson reaches a conclusion similar to the "learned ignorance" of Nicholas Cusanus. (However, this encyclopedic book, strange as it may sound, talks about almost everybody except the latter.) What God really is only God can tell, since his *nomen proprium* "does not permit spying." Hence, the question as to the names of God, the Nameless *ut sic,* can only be answered *quo ad nos.*

According to the author, there are three "Metaphysical Names" of the Divine accessible to us, to wit, God as (1) *Esse,* (2) *Intelligere,* (3) *Charitas,* and the greatest of these is love. They constitute a philosophical trinity, of which each is a distinct "aspect" of the "divine dialectic." Now, of course, it might be easy to query as to why there should be just *three* names ascribed to the Godhead, but in any case we must at least postulate a God

who can laugh at and/or with us, if we are to make at all intelligible our perennial attempts to decipher "his infinite secret." If the author should reply that laughter is part and parcel of divine understanding, which is God as *intelligere,* then there would be no quarrel on that score. Nevertheless, the impression we get from this very serious book is that its God can do everything save laugh. The hypothesis of a laughing God (or at least a smiling one), we would fain submit, is not taking his name in vain, as the real may turn out to be, for all we know, "really funny."

P. R.

L'engagement à l'être. Essai sur la signification de la connaissance. A. M. De Craene. Bruxelles: Desclée de Brouwer. 1941. 129 pp.

This work is devoted to a re-examination of the Thomistic theory of knowledge. Some of the writings of Scheuer and Maréchal are summarized as a point of departure in an analysis of the act of thought. It is argued that a conscious experience requires, besides the "given," an identity of the given, which, in turn, depends on an act of thought. To ask what meaning can be attributed to an act of thought is to reflect on thought itself. This gives rise to an immediate knowledge of a kind of being, which is interpreted as an "imitation" of the Identity of Being in which the act of thought is said to "participate."

John Goheen

Queens College, New York

Beyond This Darkness. What the Events of Our Time Have Meant to Christians Who Face the Future. Roger L. Shinn. New York: Association Press. 1946. viii + 86 pp. $1.00.

This little book, written for young people, deserves a much larger audience. Reading it is well worth anyone's time. The author, a graduate of Union Theological Seminary who waived his exemption as a theological student, was drafted into the army as a private, became a captain commanding an infantry company, and was captured in the Battle of the Bulge. He has assimilated his war experiences in terms of his Christian insights—which were in turn deepened by his experiences—to produce a little book containing much profound wisdom about dying, living, and the Christian faith.

Richard W. Day

New York City

CURRENT JOURNALS

JOURNAL OF SYMBOLIC LOGIC. Volume 11, Number 4. Concatenation as a basis for arithmetic: *W. V. Quine.* The deduction theorem in a functional calculus of first order based on strict implication: *Ruth C. Barcan.* On weakened quantification: *A. Heyting.*

MIND. Vol. LVI, No. 221. Professor Marc-Wogau's *Theorie der Sinnesdata (I): C. D. Broad.* The Continental Reception of Hume's *Treatise,* 1739–1741: *E. C. Mossner.* The Nervous System as Physical Machine: with Special Reference to the Origin of Adaptive Behaviour: *W. R. Ashby.* Second Thoughts on Causation, Dualism, and Interaction: *H. D. Roelofs.* Discussion—A Note on Logic and Existence: *Arthur Pap.*

JOURNAL OF THE HISTORY OF IDEAS. Volume VIII, Number 1. Aristotle's Conception of the Development and the Nature of Scientific Method: *Richard McKeon.* The Argument of Hesiod's *Works and Days: F. J. Teggart.* Erasmus on the Social Functions of Christian Humanism: *Fritz Caspari.* Leibniz and the Art of Inventing Algorisms: *Paul Schrecker.* Note—Legendary Quotations: *L. J. Kahn.*

TIJDSCHRIFT VOOR PHILOSOPHIE. 8e Jaargang, Nr. 4. De zin van het woord Esse bij den H. Thomas van Aquino: *L. De Raeymaeker.* De wezensbepaling van het spiritueele: *G. Verbeke.* Schoonheid en expressiviteit van het kunstwerk: *C. F. P. Stutterheim.* Plato en de geschiedenis: *G. J. De Vries.*

GIORNALE DI METAFISICA. Anno I, N. 6. L'attirance de S. Angustin: *Charles Boyer.* Leibniz e Vico: *Franco Amerio.* Souplesse et sincérité de Leibniz: *Maurice Blondel.* Riduzione del sistema leibniziano alla sua idea cosmologica fondamentale: *Armando Carlini.* Il sentimento del me conoscitore nella filosofia del Galluppi (nel primo centenario della morte): *Augusto Guzzo.* Discussioni—L'interpretazione metafisica del kantismo e il "Kant" di Piero Martinetti: *Pietro Martinetti.*

NOTES AND NEWS

We have received the following communication:

The Ninth International Congress of Philosophy (Congrès-Descartes), which took place in Paris in August, 1937, accepted at its final session the Dutch Government's invitation to meet again in the Netherlands. The Tenth Congress would have met in Groningen, in September, 1941, had not the war prevented this. In

February, 1940, an indefinite delay of the Congress was agreed upon. Only some months later the Netherlands were overpowered. Shortly after, Professor Leonard Polak was arrested; he died in the concentration camp of Sachsenhausen, a victim of an inhuman ideology.

The committee which had constituted itself under Polak's chairmanship agreed to resume their task as soon as circumstances would permit and have decided, in agreement with the board of the preceding congress and the "Institut international de philosophie," to summon the Congress to Amsterdam during the summer of 1948 to meet at a date yet to be arranged between August 15th and September 15th.

We now address to the students of philosophy in all countries, which during the last years have served the cause of mankind, a first call. We feel that the Congress will, at this very moment, meet the sympathy and the active support of all those who endorse the idea of humanity and who prefer universal values over particular interests.

The material difficulties, which at this moment hamper international relations and traffic, presumably will gradually diminish; in 1948 it will be possible to travel to the Netherlands without too much trouble. The assistance promised in this respect by the section Literature and Philosophy of the UNESCO has been gratefully accepted.

The Congress will reflect as far as possible the philosophical activities during the years since 1937. The board is fully aware of the present situation in philosophy, which is characterized by a predominance of diversity over unity. They accept the diversity without indulging in any illusions of bringing about a unification. They consider a meeting of representatives of divergent currents of thought as highly profitable, provided it is inspired by a desire for objectivity and mutual respect. On the other hand, they are anxious to prevent the Congress from becoming merely a fortuitous encounter of these tendencies where, in spite of all objectivity, the impression of a total lack of unity would prevail. In order to meet this danger the choice of a central theme, imposed by the inner development of philosophy as well as the present state of mankind, seemed justified. This theme is given by the ideas of "man, humanity, and mankind," which are so closely interconnected that their philosophical clarification can not be performed without constant mutual consultation. This central theme borrows its significance from the fact that it points to the common origin from which the divergent currents of thought may be considered; it indicates a common problem, to which they all refer. In dealing with this

theme, we certainly can not do without the contributions of sciences such as sociology, psychology, psychiatrics, ethnology, and the history of civilization.

The other domains of philosophy will, of course, be present at the Congress, besides its central theme; the theory of knowledge, the theory of values, the problems of metaphysics will not be lacking. Wherever possible they will be brought into connection with the central theme, without prejudice to the autonomous treatment of their special problems. For the plenary meetings papers will be invited on the central theme as well as on the other great problems.

Provisional subscriptions for the Congress and announcements of short papers to be read in the sections will be very welcome to the secretariate. Especially any suggestions regarding the fundamental idea and its practical elaboration will be gratefully accepted. Further communications will follow, in order to keep future participants informed on the state of our preparations.

The Organizing Committee

H. J. Pos, University of Amsterdam, chairman.
F. Sassen, University of Leyde, vice-chairman.
E. W. Beth, University of Amsterdam, secretary.
D. H. Th. Vollenhoven, Free (calvinist) University,
Chairman, Alg. Ned. Ver. voor Wijsbegeerte.
H. J. M. Oldewelt, University of Amsterdam.
....., University of Utrecht.
H. Plessner, University of Groningen.
H. Robbers, University of Nijmegen.
A. G. M. Van Melsen, University of Nijmegen.
J. Peters, University of Nijmegen.

Address of the secretary: Bern. Zweerskade 23 I, Amsterdam-Z.

The National Meeting of the Philosophy of Education Society will be held at the Hotel Benjamin Franklin in Philadelphia, Pennsylvania, March 1 and 2, 1947. The theme of the first session will be "The First Course in the Philosophy of Education," Professor Charles F. Arrowood, chairman. The presidential address will be delivered at the second session by Professor John S. Brubacher on "Frontiers of Educational Philosophy." "Theoretical Aspects of Educational Reconstructions" will be the theme of the third session, with Professor Theodore Brameld as chairman. For further information, address Professor Theodore Brameld, Secretary-Treasurer of the Society, College of Education, University of Minnesota, Minneapolis 14, Minnesota.